

AUSTRALIAN HYMENOPTERA CHALCIDOIDEA.

GENERAL SUPPLEMENT.

BY A. A. GIRAULT.

HEREIN are recorded the examinations of some of the types of Howard and of Ashmead which are in the United States National Museum; errors of omission and commission; and the addition of new genera and species. This supplement I consider of some importance since in it I am able to make quite a number of new observations and to throw light upon a number of old genera, heretofore very poorly (inexcusably so, it seems to me) described. The index and bibliography are deferred for the present as is also a second general supplement, covering the remainder of the families.

FAMILY TRICHOGRAMMATIDÆ.

ABELLA XANTHOGASTER Girault.

A female, window, Muswellbrook, New South Wales, October 25, 1914.

ABELLA SUBFLAVA SUBFLAVELLA new variety.

The Australian variety differs from the North American one in minor arrangements of the discal ciliation of the fore wing and it seems native to Australia. All former references here to *subflava* mean this variety. Types compared.

A female from a window, Muswellbrook, New South Wales, October 25, 1914.

Type: No. Hy 3549, Queensland Museum, Brisbane, the above specimen on a slide.

UFENS LUNA Girault.

“*Ufens luna*, sp. n. (normal position). ”

Female.—Length 0.60 mm. Exactly similar in general structure, appearance, and colour to the type species—*niger* (Ashmead)—but differing as follows: In the fore wings primarily: they have distinctly shorter marginal cilia, short in the type species, but here very short and close, hardly distinguishable from the edges of the wing; the discal ciliation is different, not so dense, the straight, distinct lines more numerous, consequently not peculiarly distinct as in *niger*; also the fore wing is fumated farther distad, and more distinctly, though not pronouncedly. In the legs: the posterior femora are more enlarged, ovate, and with a longitudinal lamellate sculpture. The posterior wings differ in being less

pointed at tip, there the caudal margin bevelled off, curving convexly up to the tip of the straight cephalic margin; at this curve the marginal cilia abruptly shorten, otherwise as in the type species, to which evidently it is closely allied. (From one specimen, $\frac{2}{3}$ -inch objective, 1-inch optic, Bausch and Lomb.)

Male.—Unknown.

Described from a single female specimen received from Dr. L. O. Howard, mounted in balsam, and labelled: '923. Perth. W. Austr. G. Compere.'

Habitat.—West Australia (Perth).

Type.—Type No. 13,794, United States National Museum, Washington, D.C.; a single female in balsam."

The abdomen is conic-ovate. The legs are black, not as described in the table of species *in antea*.

OLIGOSITA MINIMA Girault.

In the original description, page 77, lines 15 and 18, 65 read 78.

PSEUDOGRAMMA Girault.

In the original description, page 88, line 5 of the description, the *hyphen* should follow the word *ring*.

PAROLIGOSITA Girault.

For this genus I propose the new name *Epoligosita*. *Paroligosita* Kurjumov is identical with *Oligosita* Haliday.

TRICHOGRAMMA MINUTUM Riley.

A female on a slide in the U.S. National Museum, labelled "G. Compere, No. 885. Par. on noctuid eggs on *Acacia*. Swan River, West Australia."

OLIGOSITA BREVICILIA Girault.

The "three pairs of transverse marginal spots" of the original description means three spots on each side, a *total* of six spots.

GENUS PTERYGOGRAMMA Perkins.

"PTERYGOGRAMMA gen nov.

Head strongly transverse, ocelli in a triangle with very wide base, the posterior ones touching the eye-margins. Antennae apparently six-jointed, counting an extremely short ring-joint, the three terminal joints apparently form a widely dilated but pointed club, the terminal joint in some aspects almost spinose in appearance; pedicel widely ovate, the scape also apparently somewhat dilated. Owing to the thinly laminate character of the joints, the antennae are subject to much distortion. Scutellum rather less long than the mesonotum; the metanotum pointed posteriorly and produced over the base of abdomen; the latter elongate and acuminate, twice as long as the thorax, and apparently laterally compressed somewhat like some *Mymaridae*; the ovipositor exerted for a length nearly equal to the hind tarsi. Wings with the lines of hairs rather confused, and about 7 or 8 in number, the apical fringe not very long.

Plate XX, fig. 7.

PTERYGOGRAMMA ACUMINATA, sp. nov.

Head and mesonotum ferruginous, or brownish, the latter with a pair of fuscous marks in front; scutellum, and rest of thorax above, pale yellow; abdomen black. Wings more or less fuscous on the basal half, the dark colour tending to form three dark areas. Tarsi and the tibiae more or less pale yellow, the femora for the most part blackish or infusate, the middle and posterior pair pale at base and apex. Length $\frac{3}{4}$ mm. The specimens were badly preserved and mounted in balsam.

Hab: Bundaberg, Queensland; bred from eggs of Jassid embedded in twigs of Eucalyptus. Koebele's number 2298."

PARUSCANOIDEA AUSTRALIA new species. Female.

Length, 0.60 mm. Black, the tarsi and tips of tibiae pale, the margins of the scutellum yellowish, the fore wings distinctly but not very deeply clouded for their entirety, without discal cilia except a faint line of about seven minute cilia running from apex of the stigmal vein to apex of the blade and a pair of these in a line longitudinally (i.e., two cilia), one pair cephalad of the apical end of the long line, one disto-caudad of its end. Marginal cilia of fore wing moderately short, not a sixth of the greatest wing width, about as in *Trichogrammatoidea*. Marginal vein linear, over thrice the length of the stigmal. Caudal wings narrow, their longest marginal cilia distinctly longer than the cilia of the fore wing, bearing a distinct, median, complete line of discal cilia and no other. Abdomen as in *Pterygogramma*. Caudal femora swollen, coarsely scaly. Club obliquely divided, its first joint wider at apex than long, its second one about twice the length of the first, conic-ovate. Ring-joint distinct, minute. Pedicel subquadrate. Scape short. Stigmal vein ovate, its neck short, narrow. Ovipositor not extruded.

Described from one female on a slide in the U.S.N.M. labelled "2029. *Aspidiotus* on *Eucalyptus*. Botany Bay, Sydney, New South Wales, December 21, 1899. Hem. eggs present. Koebele" and with a *Perissopterus*.

Type: Catalogue No. 19675, U.S.N.M., the foredescribed specimen.

In III, page 148, line 12 from bottom, insert *parentheses* about the word *Girault*; page 150, in the first line under *Lathromella* insert after *female* the words *of the genotype*; page 150, line 3, *Ratzburg* should be *Ratzeburg*.

FAMILY MYMARIDÆ.

In I, p. 129, line 13, the third word should be capitalized.

In III, p. 154, sentence 1 under *Camptoptera gregi* is mistaken; page 156, line 9 from bottom, place *parentheses* about the word *Perkins*; page 168, footnote, V should read III and XV should be XIV; page 169, line 9, omit the *comma* after *globosicornis*. *Camptoptera gregi* has a "ring-joint" between joints 1 and 2 of the funicle (female).

LEIMACIS AUSTRALIA new species.

Female:—Length, 0.40 mm. Small for the family.

Black, very finely sculptured. Proximal two thirds of abdomen golden yellow; legs, scape, and pedicel dull yellow; coxæ dusky proximad. Wings practically hyaline.

Funicle 1 a little longer than wide, shorter than the pedicel, 2 longest, over thrice the length of 1, somewhat longer than 3 and narrower; funicle 3 subequal to 4, 5 or 6; club a little longer than funicle 2 but stouter. Strigil present, delicate. Joint 1 of cephalic tarsus distinctly much longer than any of the following joints, nearly twice the length of the same joint in the other tarsi. Caudal tibial spur single. Mesopostscutellum as long as the scutellum, both much wider than long. Fore wing about as in *Anagrus*, the discal ciliation arranged in about three lines, the cephalic and caudal of the three disappearing distad; also a line of cilia around the margins and disto-cephalad a short line near this marginal line. Marginal cilia of fore wing somewhat longer than the greatest width of the blade, longest disto-caudad. Apex of venation distad of the middle point of the wing, apparently clavate but this is due to the short curved stigmal vein which is nearly parallel with the margin and obscurely differentiated. Venation with about a half dozen very long, black bristles. Propodeum plane mesad.

Described from one female taken from a kitchen window, Brooklyn, New South Wales, November 10, 1914. Doubtless a forest insect.

Habitat: Brooklyn, New South Wales.

Type: No. Hy 3550, Queensland Museum, Brisbane, the above specimen on a slide.

A paratype female had the extreme apex of its abdomen black, and then a rather broad cross-stripe of black before this: these probably suffuse in most specimens. A paratype female in the U.S.N.M., Catalogue No. 19141, slide.

EOMYMAR CAMPTOPTEROIDES new species.

Female:—Length, 0.60 mm.

Jet black. With the habitus and structure of *Camptoptera* but the male antennæ 11-jointed, the female antenna with a small yet distinct, subquadrate tenth joint (funicle 2, larger than the ring-like funicle 2 of the named genus). Legs (except coxæ and base of the femora), scape and pedicel, orange yellow: rest of antenna dusky black. Wings lightly infuscated throughout, the fore wings with a dark yellow border, the caudal wings with a row of round, hyaline dots along the caudal margin. Tarsi dusky except the proximal joint of the cephalic legs. Caudal wings with a double row of minute setæ along its caudal margin. Fore wings with a double row of discal cilia along each margin and a midlongitudinal line which is composed of longer setæ and extends from near apex to about middle.

Strigil present. Wings as in *Camptoptera*. Propodeum declivous. Pedicel a little longer than wide, shorter than funicle 1 which is subequal to 3 and about four times longer than wide; funicle 2 abruptly very short, very slightly longer than wide; funicle 4 widening a little distad, 5-7, wider, 7 short, cylindrical ovate, slightly shorter than 5 or 6, the latter about twice longer than wide.

The male is about the same but the antennæ are filiform, the pedicel subglobular, the funicle joints all elongate and with a minute ring-joint between all of them and each about six times longer than wide, not excepting the club.

Described from a single pair on a slide and captured on windows, October 26, 1914 (A. P. Dodd).

Habitat: Gordonvale (Cairns), Queensland.

Types: No. Hy 3551, Queensland Museum, Brisbane, the foregoing specimens.

Mr. A. P. Dodd made the following notes before sending the specimens: Head transverse (dorsal aspect); antennæ inserted wide apart, well below the middle of the face. Thorax a little longer than wide; scutum with dense scaly reticulation, the parapsidal furrows wide apart; scutellum nearly smooth, separated from the scutum by a transverse sclerite; scutellum large. Abdomen short and stout, with a short petiole, the second segment rising abruptly from it, this segment occupying nearly half the surface, its caudal margin convex.

EOMYMAR MAXIMUS new species.

Female:—Length, 0.60 mm. Thorax without a phragma (with one in *Dicopus psyche*).

Differs markedly from *psyche* in its greater size; funicles 2-4 are not subequal but 3 is longest while 2 is subequal to 4; funicle 1 is only two thirds the length of the pedicel; the proximal half of the fore wing is distinctly infuscated, the rest hyaline; the disto-cephalic edge of the fore wing is broadly enbrowned. Scape and pedicel pallid; transverse scutellum orange yellow. Funicle 3 not quite twice the length of 1 which is two thirds longer than wide. The fore wings are very much broader. Fore wings with a paired row of setæ along each margin and midlongitudinally with about eight setæ in a line but somewhat irregular (and equally distant from apex of blade and apex of the venation). Marginal cilia of the fore wing very long. The scutellum is preceded by a rather broad, transverse sclerite and itself is much wider than long and divided along the meson, there longest.

Described from two females taken from a window, Brooklyn (Hawkesbury River), New South Wales, November 2, 1914.

Habitat: Brooklyn, New South Wales.

Types: No. Hy 3552, Queensland Museum, Brisbane, the above specimens on a slide.

ALAPTUS IMMATURUS Perkins.

“*Alaptus*, Hal.

Antennæ of female 8-jointed, the scape elongate, the second joint dilated and much wider than the following, third slender, elongate, rather shorter than the fourth, fifth, sixth, and seventh, increasing in width, club nearly as long as the four preceding. Antennæ of male 10-jointed, the scape elongate, second wider than the following, third elongate, but shorter than the fourth, which is subequal to the following joints. Posterior ocelli close to the eye-margins, the three following forming a triangle with extremely wide base. Tarsi 5-jointed. Abdomen sessile. (Plate XII, fig. 5; antennæ of female in two aspects and that of the male.)

Alaptus immaturus, sp. nov.

Female: Pallid ochreous, the head sordid and also the thorax along its posterior margin; abdominal segments with obscure sub-quadrated, lateral, blackish or sordid spots. Antennæ with two basal joints pale, the rest dark. Length $\frac{3}{4}$ mm.

Hab: Bundaberg, Queensland, bred from cane leaves containing leaf-hopper eggs, but I do not feel sure that it is parasitic on these.”

Type: Query.

GENUS PARANAGRUS Perkins.

“ *Paranagrus*, gen. nov.

Like *Anagrus*, but more slender and elongate, and with the third joint of the antennae in the female elongate, not much shorter than the following and quite slender. Otherwise as in the preceding genus. Ovipositor either slightly or strongly exerted behind the abdomen. Antennae of male 13-jointed, as in *Anagrus*, but with the third joint slender and elongate, as in the female. (Plate XII, fig. 1 and 2.)

Paranagrus optabilis, sp. nov.

Male; flavous, head more or less sordid or smoky; a large elongate subtriangular spot on either side of the middle line of mesonotum, the apex of these spots reaching nearly to the scutellum; a spot usually triangular on the parapsides, and one on the axillae, dark; abdomen with at least the apical segments more or less dark, blackish or fuscous; all the joints of the flagellum smoky or fuscous.

Female, like the male, but with the thoracic markings generally much fainter, though occupying the same positions; spots on the axillae sometimes not discernable, the abdomen not dark on the apical segments. Length $\frac{3}{4}$ mm.

Hab: Queensland; bred in all localities from the eggs of *Perkinsiella saccharicida*. A very similar form inhabits Fiji, but the material is insufficient to determine whether they are specifically identical.

Paranagrus perforator, sp. nov.

Female; yellow or orange red; head subinfusate, the whole of the flagellum of the antennae, two long triangular spots on the mesonotum, nearly or quite reaching the scutellum, one on the front angles of each of the parapsides, another on each of the axillae, an interrupted band on the first abdominal segment, and an entire one on the second and third, the lateral margins of at least some of the apical segments, and the sheaths of the ovipositor, dark, blackish or piceous. Ovipositor extending well behind the abdomen, for a length equal to that of all the joints of one of the hind tarsi taken together. Length $\frac{2}{3}$ mm.

Hab: Fiji, bred from eggs of Delphacid leaf-hoppers.”

The place of deposit of the types is unknown to me.

POLYNEMA REDUVIOLI Perkins.

“ *Polynema*, Hal.

The single species here described under this genus has a shorter marginal vein than any of the others dealt with in this paper, but it is less punctiform than in some other species, that I have examined.

Polynema reduvioli, sp. nov.

Third and ten following joints in the male elongate, subequal, in the female the third, fourth and fifth are very slender and elongate the following three much shorter and wider, the club about as long as the three preceding

together. The fringe at the apex of the front wings is much shorter than the greatest width of these. The basal joint of the hind tarsi is very long, subequal to the other three joints together.

Black and smooth, except for very fine microscopic sculpture, the three basal joints of the antennæ in both sexes, all the legs, except the apical joints of the tarsi, and the abdominal pedicel are yellow, or brownish yellow. The pedicel is elongate, and about equal in length to the hind coxæ. The surface of the wings is uniformly clothed with short dark hairs. Length 1 mm.

Hab: Hawaiian Islands; parasitic in eggs of *Reduviolus blackburni*.

N.B.—A second species closely allied to this, but differing slightly in color, and with a shorter marginal vein has probably similar habits, as also *P. hawaiiensis* described by Ashmead (Faun. Haw. vol. i, p. 332,) which agrees in nearly all structural points with the one here described. These two species are usually bred from leaves covered with *Aphis* and might easily be supposed to be parasitic on plant-lice by a careless investigator."

ANAGRUS FREQUENS Perkins.

“*Anagrus*, Hal.

Ocelli in a subequilateral triangle, and close together, the posterior very remote from the eyes; antennae of female 9-jointed, scape long, second joint widened, third very short, the fourth and following equal, club about equal to two preceding. Antennae of male filiform 13-jointed, second joint dilated, third also wide on its flat face and short, much shorter than the following, all the other joints subequal. Axillae produced forwards into the scapular region of the mesonotum; tarsi 4-jointed, wings with long apical cilia, much longer than the greatest width of the wing. Abdomen sessile, ovipositor a little exerted. (Plate XII, fig. 4 and 6; antennae.)

Anagrus frequens, sp. nov.

Female: Orange red or reddish yellow, the occiput for a large part, the antennae except the two basal joints, two contiguous or subcontiguous large marks on the front of the mesonotum, one on the anterior end of each of the scapulae, one on the axillae, two or three of the basal abdominal segments more or less, as well as their lateral margins very narrowly, and the sheaths of the ovipositor, dark, blackish or fuscous. Wings hairy, but with a long bare area on the lower side of the apical half. Ovipositor very little exerted.

Male generally like the female apart from the structural differences in the antennae as stated above, and in the usual abdominal characters. Markings as in the female, probably more pronounced as a rule, but similarly situated, the abdomen apically dark above. Length $\frac{5}{8}$ mm.

Hab: Queensland; bred from eggs of Delphacids. An apparently slightly different race inhabits Fiji, but I cannot separate it specifically."

I have seen the type of *Anagrus columbi* Perkins which *in antea* is stated to be the same as *frequens* and *armatus*.

THE FAMILY ELESIMIDÆ.

GENUS EURYISCHIA Koebele.

Myiocnema Ashmead of the Aphelininæ is a true synonym as I know by examining the types of the genotype of the latter.

EURYISCHIA SHAKESPEAREI Girault.

This is a synonym of *Myiocnema comperei* Ashmead, the types of which I have seen. In *antea*, *Myiocnema pallida* Ashmead (Howard), is written once for *comperei*; the name *pallida* has no standing in nomenclature. The type number of *comperei* in the U.S.N.M. is really 5342 and not 5442 as on the specimens and as published. The species thus occurs as far south as Brisbane on the east coast and I have seen four females in the United States National Museum which were reared from *Dactylopius vastata* at Swan River, West Australia. I have specimens also from Java (van der Goot) and Koebele reared it from males of *Kermes acaciæ* Maskell on Acacia at Sydney, N. S. Wales, December 21, 1899 (I have seen these specimens).

EURYISCHOMYIA FASCIATA new species.

Female:—Length, 0.90 mm.

Honey yellow, the wings hyaline; cephalic and caudal margins of the propodeum narrowly and three distinct cross-stripes on the abdomen, black, the first cross-stripe at apex of proximal third or not quite, the third longest, some distance before the apex, all complete and tolerably broad. Venation yellow. Wings as in *Euryischia*; under the submarginal vein proximad of the distinct caudal projection which bears two short setæ, a number (about three rows, caudocephalad) of short, stiff bristles, shorter than those from the submarginal vein, much coarser than the very fine discal ciliation which terminates before the base of the marginal vein. Scutum with scattered, short, black setæ cephalad. Postmarginal vein longer than the long, slender stigmal, the latter over half the length of the marginal. Caudal tibial spur single, slender. Scape compressed, the pedicel somewhat longer than wide at apex, much longer than funicle 3 which is longest; all funicle joints wider than long. Antennæ capitate, the club longer than the funicle. Scutellum with four bristles. One ring-joint distinct. Hind tibiæ with stiff bristles dorsad.

Described from one female from Perth, West Australia (G. Compere. 837.)

Type: Catalogue No. 19679, U.S.N.M., the foredescribed specimen plus a slide bearing an antenna, hind leg and fore wing.

FAMILY EULOPHIDÆ.

In *antea*, III, p. 184, line 5, for *Queensland* read *Melbourne, Victoria*; p. 213, line 3 from bottom, *jointed* read *joined*; p. 217, line 17 from bottom, *North* read *Northern*; p. 225, footnote 7, line 3, omit the second *i* in *Grotiusiella*; p. 238, line 26, *at* read *and*; p. 287, line 3 from bottom, *species* read *specimen*; page 293, line 9, insert *weaker* before *cephalad*; p. 294, line 9 from bottom, *species* read *genus*. In the Tetrastichini, substitute for the present *Neotetrastichus* Perkins for *Syntomosphyrum* Foerster.

EPICHRYSOATOMUS new genus.

Female:—In my table of entedonine genera runs to *Chrysoatomoides* Girault but differs in that the propodeum bears a pair of median carinæ (distinctly separated) which run to the base of a short, distinct neck; and a semi-circular lateral carina *distad*, its mesal end from the apex of the neck laterad,

its lateral end at the caudal coxa; propodeal spiracle minute. Abdomen with the petiole wider than long, subequal in length to the neck of the propodeum, its second segment occupying about a fourth of the surface. Postmarginal vein moderately long, distinctly longer than the subsessile stigmal. Mandibles tridentate. Parapsidal furrows complete, narrow. Pronotum not visible from above. Scutellum with a single long bristle laterad a little distad of middle; scutum with two long bristles, one on each side caudad.

1. EPICHRYSOATOMUS UNFASCIATIPENNIS new species. Female. Genotype.

Length, 1.50 mm. Dark greenish green, the antennæ and coxæ concolorous, the legs reddish brown except the cephalic femur at about proximal two thirds and less of the caudal femora, these parts of the legs washed with metallic distinctly; tibiæ distad and the tarsi except at extreme apex, white. Scape long, stout, curved; pedicel elongate, thrice longer than wide at apex, distinctly longer than any following joint; funicle 1 ovate, somewhat longer than wide, a third shorter than 2 which is next longest of the flagellum. Club 1 next longest, then 2 which is somewhat longer than funicle 1, club 3 slightly smaller than funicle 1, bearing a distinct terminal spine as long as itself. Head and thorax reticulated scaly, the lines raised; axillæ more finely so. Propodeum glabrous, also segments 2 and 3 of the abdomen, the rest of the abdomen dorsad finely scaly. Segment 3 of abdomen shortest, transverse-linear, 4, 5 and 6 subequal, each about twice the length of 3. Fore wings with a distinct sooty cross-stripe from the apex (moderately broadly) of the very long marginal vein and whole of the stigmal, this stripe broadest at the middle, darker cephalad, narrowing from the middle to each wing margin, hence more or less diamond-shaped.

Described from one female captured November 5, 1914 by sweeping in forest (low uplands, scanty grass), Brooklyn, New South Wales.

Type: No. *Hy 3553*, Queensland Museum, the specimen on a tag, the head on a slide.

GENUS HORISMENOPSIS Girault.

GENOTYPE: HORISMENUS ANTIOPA Girault.

RHICNOPELLELLA PURPUREIVENTRIS new species.

Female:—Length, about 1.80 mm. Robust, the ovipositor shortly extruded.

Differs from most of the species in being rather brilliant metallic green, the abdomen, legs and face black-purple; tarsi, except distal joint and the cephalic knees, white. Wings hyaline, the venation fuscous. Body densely scaly. Middle tibial spur long and slender, nearly as long as the basal joint of the caudal tarsus. Tegulæ brown. Three distinct ring-joints which, however, increase in size, the third a little less than half the length of funicle 1. Funicle joints increasing in width distad but of about the same length, the middle one a little the longest, the third somewhat less than half the length of the elongate pedicel. Abdomen compressed. Club ovate, not longer than the funicle, obliquely truncate from one side. Caudal tibial spur single. Club nippleless.

Described from five females on tags in the United States National Museum from Perth, W. Australia.

Types: No. *Hy 3554*, Queensland Museum, two females on tags plus a slide with antennæ and hind legs. *Paratypes*: Catalogue No. 19145, U.S.N.M.

PARASECODELLA SECUNDA new species.

Female:—Length, 1.40 mm.

Agrees with the description of the genotype but the fore wings are infuscated from the break of the submarginal vein distad to apex and the propodeum is delicately scaly. Knees and tips of tibiae very narrowly reddish yellow. Marginal fringes of the fore wing a little longer than usual. Proximal half of the scape brownish yellow. Pedicel twice longer than wide at apex. Infuscation of fore wing deepest across from the marginal vein. A very short carina on each side of the median carina of propodeum from caudad. Scutellum with four small bristles. Caudal tibial spur rather long. Body scaly reticulate.

Described from one female taken from a window, Brooklyn, New South Wales, November, 1914.

Types: No. *Hy 3555*, Queensland Museum, the female on a tag and a slide bearing a fore wing, the head and hind legs.

ENCYRTOMPHALE PARVULICORPUS Girault.

One female, forest, Brooklyn, New South Wales, November 10, 1914. Like the description but the parapsidal furrows were only cephalad and short. Sculpture very fine, slightly raised scaliness. Axillae oblong, nearly wholly cephalad of the scutellum. Thorax with a short phragma. Ovipositor inserted near base. Tarsal joints short.

RHICNOPELTELLA AUSTRALIA new species.

Female:—Length, 2.00 mm.

Dark metallic green, the hind tibiae, the tarsi except the last joint, tips of middle tibiae and distal half of cephalic tibiae, pale. Fore wing infuscated under the marginal and stigmal veins, across except disto-caudad. Funicle 3 about two thirds the length of the pedicel, 1 like a ring-joint but wider than the three of those joints, no longer. Club enlarged, conic-ovate. Funicle 2 about as long as the four preceding joints, much smaller than 3 and not more than half its length. Antennae black. Allied with *splendoriferella* but the legs differently coloured and funicle 1 is shorter, like the ring-joints.

Described from a female taken at Sydney by A. Koebele.

Type: Catalogue No. *19680*, U.S.N.M., the above specimen plus a slide with pair of wings and an antenna.

OMPHALOMOMYIA LIVIDICAPUT Girault.

The face just below the antennae to the mouth (practically the clypeus) may be yellow as the case of three additional Gordonvale specimens seen. There is a groove far laterad on the scutellum, *laterad* of the bristles (thus not a lateral groove as understood).

OMPHALOMORPHA FRATER Girault.

Several specimens of both sexes received from Mr. A. P. Dodd, labelled "G. F. Hill. From *Eugenia* fruit infested with *Dacus* sp.? Other insects. Port Darwin, Northern Territory, December 23, 1914."

OOTETRASTICHUS BEATUS Perkins.

Synonym: The variety *affinis* of Dodd and Girault.

There are on each margin of the abdomen a dot at base and four wider than long spots, the last spot at base of about distal third. The propodeum is metallic except laterad of the spiracle.

From specimens in the U.S.N.M., reared from the eggs of *Perkinsiella saccharicida* at Honolulu.

TETRASTICHODES FROGGATTI Ashmead.

This is a species of *Aprostocetus*. The original description is correct but the scutum is concolorous (i.e. pale golden yellow) broadly at its cephalo-lateral corner; the dot caudad on each parapside is longer than wide (and appears to be on the acute apex of the much advanced axillæ); it is cephalad of a line drawn through the tegulæ. The propodeum is concolorous laterad of the spiracle. The spot at mesal base of the scutellum rounded. The black is really brown-black; that on the abdomen forms three rather distinct cross-stripes at the middle, all rather broad. Propodeum with a median carina only. Marginal fringes of the fore wing a little longer than usual. Stigmal vein tolerably long. Postscutellum dusky. Scutum with a delicate median groove. Abdomen elliptical, narrower than the thorax. Face of pronotum black. Caudal margin of propodeum carinated. Mandibles tridentate. Funicle joints subquadrate but 3 longest, a little longer than wide, slightly shorter than the pedicel, the latter dusky above at base. Club with a distinct terminal nipple. A well-marked species.

From three female types and nine paratypes in the U.S.N.M. A specimen mounted as a male type was entirely black except the legs but the head was missing. A female type head has been mounted on a slide.

PSEUDIGLYPHOMYIA SILVÆ new species.

Female:—Length, 1.45 mm.

Dull orange yellow, the postscutellum and the dorsal thorax laterad of it, the pronotum, parapsides and coxæ pale lemon yellow; fore wing infuscated from apex to base of the marginal vein but a clear area extends along the whole of the marginal vein and along the distal side of the stigmal vein. A U-shaped marking over the centre of the occiput, a twice longer than wide spot on scutellum just out from base at meson, median carina and a spot at mesal apex (caudad) of propodeum; parapsidal furrows and grooves of the scutellum; a dot at extreme latero-cephalic angle of each axilla; cephalic margin of propodeum out to the spiracle; dorsal margin of caudal femur narrowly; apex or more of stigmal vein; and eight cross-stripes on abdomen, the first at base, the last across a little before apex; stripe 4 is a double one (here counted as two), 7 and 8 are suffusedly connected along the meson, making a rather large black area. Extreme lateral angle of pronotum (dorsal aspect) black. Body finely scaly. Funicle 1 a half longer than wide, 2 a little shorter, longer than the pedicel which is somewhat longer than wide at apex; club joints 1 and 2 subquadrate or a little wider than long; club with a terminal spine. Mandibles about 6-dentate.

Described from a female captured by sweeping "fir" bushes, forest lowland, Hawkesbury River, Brooklyn, New South Wales, November 9, 1914.

Type: No. *Hy 3556*, Queensland Museum, the specimen on a slide.

GENUS GROTIUSELLA Girault.

The antennal club is *solid*.

GROTIUSELLA VARIGUTTATA new species.

Female.—Of the usual size. Dark metallic blue-green, the abdomen yellowish except dorsad, the legs white; caudal coxæ and femora concolorous but the apex of these femora rather broadly white. Caudal margin of pronotum rather broadly except at extreme lateral end, a broad stripe across base of abdomen deeply incised at meson of cephalic margin, followed by two pairs of marginal spots (dorsal aspect), the mesal one wider than long, followed at about middle by a cross-stripe which is not quite complete and has a marginal dot just laterad of it, followed by a pair of marginal spots (the mesal one round-ovate, the lateral a mere dot—dorsal aspect like the lateral ones of the other pairs. From lateral aspect, the lateral spots are nearly as large as the mesal ones and wider than long; the abdomen thus bears spots much as in *multiguttata*. The first pair is smallest), followed by a narrow, incomplete cross-stripe which is obscurely interrupted at meson, followed by a mesal dot at tip. Ivory white; also ventral two thirds of face, facial margin of the eyes very narrowly (inside of a broad, broken green line down the eyes) and the vertex except all the central part broadly. Scape white, with a dusky spot on each side of tip. The following parts golden yellow or tawny: Distal part of the “parapsidal furrows” and at extreme cephalic end, margins of axillæ except the cephalic, margins of the scutellum except the cephalic, proximal half of the tegulae, lateral margins of postsutellum and sutures surrounding insertions of the wings, caudal tibiae just below the knee, middle coxæ, an obscure area along middle femur ventrad near tip, one on middle tibiae dorsad near base and distal tarsal joint, metallic purplish. Body finely scaly. Wings hyaline, the venation pale, the postmarginal and stigmal veins subequal. Cheeks metallic. Pedicel barely longer than wide, a little smaller than the subequal funicle joints which are slightly wider than long. Mandibles 6-dentate. Propodeum with a median carina.

Described from a female captured by sweeping upland eucalyptus forest, Brooklyn, New South Wales, November 3, 1914.

Type: No. Hy 3557, Queensland Museum, the specimen on a slide.

GYROLASELLA GEMMA new species.

Female.—Length, 1.25 mm.

Lemon yellow, marked with dark coppery metallic green as follows:—A Greek letter π (π) of the lower case centre of upper half occiput, ocellar area, dorsal pedicel except at apex; distal half of scape dorso-laterad; median line of pronotum rather broadly; a dot at extreme caudo-lateral angle of pronotum; parapsides, the green running to centre of each axilla; a cuneate marking from mesal cephalic margin of scutum extending to apex, the yellow lateral margin of scutum gradually widening distad; scutellum except lateral and apical margins broadly (green between the grooves but caudad narrowing a little, leaving the grooves), postsutellum except lateral and apical margins (hence an acute triangle at its base mesad); a Y-shaped marking at base of abdomen; a narrow cross-stripe on abdomen just before apex; tip of ovipositor valves; four pairs of cross-stripes on abdomen, the first stripe of each pair fainter, the second stripe of the third pair complete or nearly, the others

abbreviated laterad, the first pair joined to the Y at base and narrowly along the meson to the second and third pairs; three very minute marginal dots on abdomen, the second and third opposite the first and second pairs of cross-stripes; propodeum; dorso-lateral base of caudal coxa; each side of the meson of proventer; an oblique dash on mesopleurum just caudad of cephalic coxæ and continuously from this across mesoventer; space between cephalic coxæ; and the mesopleurum between second and third coxæ obliquely from wing insertion. Cross-stripe 4 of abdomen nearly solid and all dark. Wings hyaline, the venation pale. An elbow-like green marking just caudad of each axilla.

Described from one female captured by sweeping forest uplands, Brooklyn, New South Wales, November 5, 1914.

Type: No. *Hy 3558*, Queensland Museum, the foregoing female on a slide.

GYROLASELLA RUSKINI new species.

Female:—Length, 1.50 mm. Pronotum rather long.

Golden yellow, the wings hyaline (the stigmal vein darker), the legs concolorous. Marked with dark metallic blue-green as follows:—A U-shaped marking inverted over centre of occiput, ocellar spots, a narrow, curved line on face along upper third of eye, its dorsal end turned some distance mesad in front of the ocelli, proximal half of pedicel dorsad, a streak down side of the scape; pronotum (excluding the hidden neck); a marking along meson of scutum as in *gracilis* but somewhat more broadly separated from pronotum; median line of scutellum to very near apex, the line clavate; parapsidal furrows narrowly but spreading caudad over a little of each parapside; a very narrow, short, longitudinal line across lateral end of axillæ; a spot just laterad of scutellum and one just mesad of insertion of fore wing; cephalic margin of propodeum rather broadly and irregularly, meson of propodeum more narrowly, caudal margin of propodeum narrowly across meson; a spot cephalad of propodeal spiracle; tip of ovipositor valves; base of abdomen at centre; four transverse marginal spots on abdomen (near base to somewhat distad of middle); eight lines across abdomen, 1 dusky, in a line with the first marginal spot but not connecting; 2 and 3 close together, 2 dusky, complete, 3 dark, incomplete, in a line with the second marginal spot, against 2 and connected along the meson with 4; 4 and 5 like 2 and 3 but 5 nearly reaches the marginal spot on each side and is not against 4; 5 is connected to 6 along meson; 6 and 7 also paired like 4 and 5 but 7 connects the fourth marginal spot; stripe 8 is dusky (not deep metallic like 3, 5 and 7), complete, turning proximad at meson as if to joint 7 but plainly not doing so; first marginal dot of abdomen smallest. Antennæ usual. Mandibles tridentate. Funicle 1 larger than the pedicel, longer than wide, 2 quadrate. Postmarginal vein shorter than stigmal. Scutellum with four bristles in a large square, as in *bifasciatifrons*.

Described from one female caught on forest upland, Hawkesbury River, Brooklyn, N.S.W., November 3, 1914.

Type: No. *Hy 3559*, Queensland Museum, the specimen on a slide; a female on a slide, *cotype* in U. S. N. Museum.

A common species. The lines on abdomen vary somewhat as regards the positions of 2 and 3, 4 and 5, and 6 and 7; also 5 may not be connected along the meson to 6; 3 may be upon 2 and 5 upon 4. The green on the parapside swells triangularly at about middle.

GYROLASELLA BIFASCIATIFRONS new species.

Female:—Length, 1.40 mm. Wings hyaline.

Golden yellow, marked with metallic green as follows: A bow-shaped line across the occiput cephalad of middle; an angular dot in front of each lateral ocellus; two slender lines across the face, the dorsal somewhat below the middle of the eyes, the ventral three the antennal insertions, at the ventral apex of the eyes; tip of scape and base of pedicel dorsad; a uniform line down meson of scutum; a round dot on scutum on each side centrally of this line a little cephalad of middle; a uniform, more thickened line down meson of scutellum except for a short distance on each end; a small triangular spot base of post-scutellum at meson; a dot about centre of the curved, oblique cephalic margin of the axillæ and another one nearly in a line with it longitudinally near caudal margin; a line across the latero-dorsal margin of the transverse pronotum; parapsidal furrows very narrowly; cephalic margin of propodeum very narrowly to spiracle, a subquadrate area suspended from this at about the middle of each side; a V-shaped marking centre of base of abdomen; four slit-like transverse marginal spots on abdomen: five cross-stripes, the first faint, bow-shaped, joined to the V at base and immediately followed by a pair of transverse spots (one on each side of meson) which are about equal to and opposite to the first marginal spot; stripes 2-5 composite, a bow-shaped more obscure ground stripe with a distinct, straight stripe on it, 5 shorter (latero-laterad), none reaching the marginal spots; last marginal spot about opposite stripe 4; a dot on each margin of abdomen near apex and a minute longitudinal one at meson cephalad of but between the marginal dots; also apex of ovipositor valves, apex of tegulæ and caudal suture of axillæ. Legs immaculate. Scutellum with four isolated bristles. Venation yellow, the stigmal vein dusky or infuscated, longer than the post-marginal. A metallic green spot cephalad of the end of the metallic green cephalic margin of propodeum; this spot is acutely prolonged mesad; also the suture of the mesopleurum is metallic green and a transverse spot on cephalic margin of scutum near lateral end. Mandibles 5-dentate, the two outer teeth larger.

Described from one female caught in "fir-bushes," forest lowlands, bank of Hawkesbury River, Brooklyn, N.S.W., November 9, 1914.

Type: No. *Hy* 3560. Queensland Museum, the specimen on a slide.

SCOTOLINX new genus.

Female:—Belongs to the Ophelinini. Runs to *Opheliminus* Girault but the funicle is only 2-jointed, the antennæ 9-jointed. Abdomen sessile, flattened, ovate. Pronotum well developed but not especially large. Parapsidal furrows complete. Scutellum simple, with four bristles. Axillæ advanced half cephalad of the scutellum. Propodeum only about half the length of the rather large postscutellum at the meson, much longer laterad, its caudal margin straight. Mandibles bidentate, the second or ventral tooth truncate but its dorso-distal apex subacute. Marginal vein shorter than the submarginal, two and two thirds times longer than the stigmal, the postmarginal shorter than the well-developed stigmal. Club without a terminal nipple. Hind tibial spurs distinct, a little unequal.

1. SCOTOLINX GALLICOLA new species. Genotype.

Length, 1.45 mm. Pale honey yellow, the wings hyaline, the funicle, club and five cross-stripes on abdomen, dusky black. First cross-stripe out from base

of abdomen distinctly a short distance, the fifth some little distance before apex, abbreviated laterad, curved and obscurely joined to 4 along the meson. Pedicel dusky, a little longer than wide at the apex, slightly longer than the funicle joints which are a little wider than long and subequal. Club longer than the funicle. Antennæ and cheeks with short, stiff hairs, larger on the club. Venation dusky. Hind wings with about a dozen lines of discal cilia across from the hooklets. Vertex and pronotum with numerous, short, stiff black setæ, longer along the caudal margin of the pronotum. Finely scaly. Parapsides also with the setæ but here they are more scattered. Scutum with but four hairs. Propodeum simple. Small black setæ are present along the lateral margin of propodeum.

In the male, the vertex, meson of pronotum broadly, scutum, parapsides mesad broadly, axillæ, scutellum, propodeum and dorsal abdomen, are dark metallic blue. Otherwise, it is about as in the female (ring-joints not verified).

Described from four males, two females on a card in the U. S. National Museum, labelled "*Scotolinx gallicola* Ashmead. Types. Type No. 12,743, U.S.N.M. 78. Liverpool galls. *Melaleuca lineifolia*."

Habitat: Liverpool, New South Wales and as above.

Types: As above plus a slide with female appendages.

EUPLECTROMORPHA AUSTRALIENSIS (Ashmead).

The *distal fourth of abdomen dorsad* (and somewhat less beneath) is black. Dorsal thorax uniformly scaly, the propodeum glabrous except the finely scaly neck, with the usual strong median carina. Scutum just caudad of cephalic margin and the pronotum with punctures which are setigerous. Funicle 1 longest, over twice longer than wide, 2-4 nearly equal, each somewhat longer than wide, somewhat shorter than the club, each longer than the pedicel. Mandibles present, edentate, obtusely pointed. Belongs to *Euplectromorpha*.

Description otherwise correct. From the type in the U.S.N.M. (the head mounted on a slide).

EUPLECTRUS AGARISTÆ Crawford.

There are obtuse mandibles as in the foregoing species. Original description correct but funicle 4 is distinctly longer than the pedicel, nearly twice longer than wide. From the types.

The genera *Euplectrus* and *Euplectromorpha* thus bear very pale, weak, obtuse mandibles while *Euplectromorphella* bears stronger and dentate ones.

DIAULOMORPHA AUSTRALIENSIS Ashmead.

Head (cephalic aspect) somewhat wider than long, the scrobes deep, long, extending nearly to the cephalic ocellus but not quite joined above, the antennæ inserted below the middle of the face on a level with the ventral ends of the eyes or slightly more dorsad, 10-jointed with two ring-joints (the first very short), the funicle 3-jointed, the third joint of the club with a distinct nipple. Flagellum somewhat compressed. Scutellum with a delicate but distinct, clear lateral groove. Postmarginal vein somewhat longer than the long, slender stigmal, the latter slightly less than half the length of the marginal; wings hyaline, the venation yellow-brown. Scape white, reddish above at tip, the pedicel nearly all dark metallic, rest of antennæ and the legs except the coxæ, reddish yellow. Hind tibial spurs distinct. Joints of funicle and club armed with flattened

hairs. Funicle 3 quadrate, larger than the pedicel; club 1 largest, wider than long, 3 at apex with an inset tubercle-like joint which bears the terminal nipple and appears to be articulated (if so, club 4-jointed). Mandibles 6-dentate. Propodeum with a delicate but distinct median carina, no others but a sulcus runs along the caudal margin from the meson to about opposite the not very large spiracle and which narrows mesad. Postscutellum large, nearly half the length of the scutellum, sculptured like the latter. Propodeum subglabrous between the spiracles, otherwise scaly like the rest of the thorax. Axillæ much advanced. Parapsidal furrows cephalad, very short, the scutum with the usual constriction cephalad. Segment 2 of abdomen occupying about one third of the surface, mostly smooth, rest of the depressed abdomen delicately scaly. Scutellum with a finer surface than the scutum, the latter very densely scaly-punctate. Head sculptured like the thorax.

Redescribed from the type in the U. S. National Museum. "Australia—Koebele."

HEMIPTARSENIOIDEUS new genus.

Female:—In Ashmead's table runs to *Hemiptarsenus* Westwood but differs in bearing four funicle joints and two club joints. Head triangular, the antennæ inserted in the middle of the face, the long scape extending above the ocelli. Club with a distinct terminal nipple. Marginal vein long and slender, somewhat longer than the submarginal, the postmarginal subelongate, distinctly longer than the well-developed stigmal. Abdomen with the second segment occupying about a fifth of the surface; a short distinct petiole is present, the body of the abdomen conic-ovate. Form slender. Proximal joint of caudal tarsi elongate, the caudal tibial spur distinct. Legs slender. Spiracle of propodeum minute, round, a little caudad of cephalic margin, lateral carinæ present, very delicate, straight, a median carina at base but rather weak and one third complete. Axillæ but slightly advanced, widely separated. Pedicel smallest of the antennal joints. Two ring-joints, the first very short. Mandibles 4-dentate. Stigmal vein about a fourth the length of the marginal.

HEMIPTARSENIOIDEUS SEMIALBICLAVA new species.

Female:—Length, 1.45 mm.

Metallic purplish green, the abdomen black-purple, the wings hyaline, the venation brownish; coxæ and caudal femora concolorous, also distal three joints of caudal tarsus and a little over distal third of caudal tibiæ; scape (except above at middle), second club joint with its terminal spine and rest of legs, white except the distal three tarsal joints. Funicle 2 longest of the funicle, subequal to 1, 3 and 4, each slightly shorter in succession; 1 is nearly as long as the body of the scape and about $3\frac{1}{4}$ times longer than wide; 4 only about two thirds the length of 2, subequal in length to the club. Pedicel a little longer than wide at apex, not half the length of 1. Ring-joint 2 rather large. Thorax finely scaly, the propodeum subglabrous between the lateral carinæ, except near proximal margin, the abdomen much smoother, shining. Postscutellum shining. Middle femora metallic.

The male is about the same except in the abdomen and the antennæ, the latter bearing long, serrated or rather short-plumose rami one each from funicles 1-3 (from the same side and originating near apex), these rami are much longer

than funicle 4 which is longest, elongate, 1 shortest, only somewhat longer than wide, the distal club joint next shortest, then funicle 2, club 1 and funicle 3, the latter about thrice the length of 1.

Described from two males, three females in the collections of the United States National Museum, labelled "840. Perth, West Australia. G. Compere."

Types: Catalogue No. 19116, U.S.N.M., one pair on tags and a slide bearing female hind legs and antennæ and male antennæ. *Cotypes*: No. Hy 3561, Queensland Museum, several broken specimens on tags.

HEMIPTARSENOIDEUS SEMIALBICLAVA SECUNDUS new variety.

The same as the typical form but the propodeum is scaly farther laterad, apparently lacks the delicate abbreviated median carina at base and funicle 1 is somewhat shorter, shorter than 2 which is longest and subequal to 3. The scape is all black and somewhat shorter. Compared with type of the typical form.

Described from a female captured by sweeping trees and grass in a civic park, Muswellbrook, New South Wales, October 24, 1914.

Type: No. Hy 3562, Queensland Museum, the specimen on a tag, the head and a hind leg on a slide.

A second female at Brooklyn, New South Wales, forest, November 5, 1914.

CREMNOEULOPHINI new tribe.

Differs from *Hetreulophini* in bearing two distinct spurs on the hind tibiae.

CREMNOEULOPHUS new genus.

Male:—Form elongate, robust. Head, cephalic aspect rounded triangular, the stout antennæ inserted a little above the middle of the face, 13-jointed with two ring-joints, the club 4-jointed. Pronotum rather large. Parapsidal furrows distinct, nearly complete. Scutellum with a lateral grooved line. Propodeum with a distinct median carina and no others. Marginal vein about two thirds the length of the submarginal, the postmarginal and stigmal veins both short, subequal, about a fifth the length of the submarginal. Middle and caudal tarsi 5-jointed, the other not seen. Hind tibial spurs stout. Axillæ advanced nearly wholly cephalad of the scutellum. Scutum long.

CREMNOEULOPHUS GIGANTEUS new species. Genotype.

Length, about 6.00 mm.

Dark metallic green, the abdomen dark purple, the wings hyaline, the venation brown; tarsi except the last joint and more or less of the knees, white; Cephalic knees and tibiae brown. Body densely scaly, the scutum coarsely so and with scattered pin-punctures, the scutellum with a line of minute punctures mesad along the lateral groove. Marginal fringes of the fore wing minute, the discal ciliation apparently absent. Mandibles tridentate, the third tooth truncate. Segment 2 of the abdomen occupying a fourth of the surface. Lower face with scattered punctures.

Described from two males in the U.S.N.M. labelled "From *Apiomorpha maliformis* Fuller MS., West Australia. Through Townsbury, October, 1898."

Types: Catalogue No. 19682, U.S.N.M., the above specimens on a card and a slide bearing a head, hind and middle legs.

GENUS ZAGRAMMOSOMA Ashmead.

This genus bears two ring-joints so that it is the same as *Atoposoma* Masi and the name takes precedence. My single species (*pulchra*) of *Zagrammosoma* from Australia is therefore misplaced and is the genotype of *Parzagrammosoma* new genus which is characterized by bearing but a single, usually concealed, ring-joint.

GENUS PSEUDIGLYPHOMYIA Girault.

This is the same as *Cirrospilus* in the North American sense (*Cirrospilus flavicinctus* Riley).

GENUS SYMPIESOMORPHALLEUS Girault.

This is a synonym of *Cirrospiloideus* Ashmead which was erroneously described.

FAMILY PERILAMPIDÆ.

GENUS EPIPERILAMPUS Girault.

This is a synonym of *Trichilogaster* Mayr. The following species besides my own:

- acaciæ* = *dicoloris* (Froggatt).
- acaciæ* = *longifoliæ* (Froggatt).
- maideni* (Froggatt) Mayr.
- pendulæ* Mayr.

Froggatt does not *describe* the species *maideni*. This is such a case of carelessness as to cause astonishment. His pseudo-description represents nothing like the actual specimens. I am forced to accept Mayr's descriptions. In *Trichilogaster acaciæ* = *longifoliæ* (Froggatt) the base of the abdomen is orange except narrowly at meson; the antennæ are not inserted below the eyes but in the middle of the face; the brown cloud on the fore wing is from the apex of the submarginal vein and the rest of the wing is subhyaline. Venation reddish brown. Four females in the U.S.N.M. labelled "From galls on *A. longifoliæ*. Bot. garden. 15.11.11. *T. a.* = *longifolia*, det Frogg." Of *maideni* in the same collection, two females "From galls on *Acacia maideni*. Bot. gardens." The wings of *maideni* are clearer but the cloud is in the same place. Both the species *longifoliæ* and *maideni* bear two caudal tibial spurs which are stout and unequal.

GENUS MELANOSOMELLA Girault.

This is a synonym of *Terabiella* Ashmead of the Pteromalidæ and the genotypes are identical. The female scape is compressed. The punctures on the face are very minute. Types examined.

GENUS CÆLOCYBOMYIA Girault.

This is a synonym of *Calocyba* Ashmead, formerly of the Pteromalidæ.

The original description of *Cælocyba nigricincta* Ashmead errs in stating the metathorax to be black; it is so laterad only rather broadly and at base of

meson quadrately and along its cephalic margin; there is a transverse, narrow black line across scutellum just before its apex, but abbreviated laterad, running between the two bristles; rest of scutellum and caudad to abdomen lemon yellow. On the abdomen six very distinct black stripes, the first and second often combined, the distal two with cephalic convexities at meson. The axillæ may have a more or less distinct fuscous blotch cephalad. Pronotum lemon yellow. Orange yellow. Funicle 2 only somewhat longer than 1. The species runs very close to *novisexfasciata* Girault and is very likely the same. From the types of the genotype of *Cælocyba*.

GENUS BRACHYSCELIDIPHAGA Ashmead.

Removed from the Pteromalidæ. The original description of the genotype is correct. The spot on the scutum is subovate or longer than wide and a little caudad of centre at the meson; the spot on the inner angle of the parapside is over the caudal end of that sclerite and the cephalic end of the axilla. The scutellum is brown-black except lateral and apical margins broadly; the abdomen is "dusky or brownish" dorsad only, except at base where there is a yellow triangle on each side of the meson, the apex mesad. The marginal vein is about a half longer than the stigmal. Caudal tibial spur single. Postmarginal vein slightly longer than the stigmal, the marginal longest.

Differs from *Cælocybella* Girault in bearing but a single caudal tibial spur, the stigmal vein is longer in proportion to the marginal and the three ring-joints gradually enlarge. It comes closest to *Trichilogaster* but that genus should bear two caudal tibial spurs (e.g., *ater* does) and the marginal vein is thickened. Differs notably from *Cælocybelloides* in lacking one caudal tibial spur.

From the types.

PARACÆLOCYBA new genus.

Genotype: *Cælocyba acincta* Girault. Transferred from the Pteromalidæ. Includes *C. variifasciata* Girault and the following species.

Differs from *Cælocybombia* in lacking a sclerite between scutellum and postscutellum and one caudal tibial spur and in bearing a solid club.

PARACÆLOCYBA MINUTA new species. Female.

Smaller than usual. Length, about 1.00 mm. Bright orange yellow, the following parts black: Distal half of abdomen ventrad and dorsad, three narrow cross-stripes on proximal dorsal abdomen (or distal fourth is black above and below, proximad dorsad with four stripes), the first just out from base and interrupted on each side of the meson; a line across upper face of pronotum and lateral margin of propodeum. Scutum, scutellum and parapsides studded with short, black hairs as in the other species. Caudal aspect of head, postscutellum and propodeum lemon yellow. *Second tibial spur very small*, distinct. Mandibles tridentate. Three ring-joints; funicles 1-2 subequal, the others gradually enlarging, 5 largest, much wider than long, 3 and 4 subequal. Wings hyaline, the venation pale yellow. Antennal club apparently solid. Antennæ inserted at the clypeus.

Described from four females captured by sweeping "fir bushes" in blossom, forest lowlands, Brooklyn, New South Wales, November 1-9, 1914. A common species.

Types: No. Hy 3563, Queensland Museum, a female on a tag plus a slide bearing heads and caudal legs.

Paratype: Catalogue No. 19142, U.S.N.M., a female variety *nigriventris nova* on a tag, the whole abdomen black (except ventro-proximal half, a yellow line across just out from base and a yellow dash just distad of this, one on each side of the meson).

PERILAMPOIDES AURANTISCUTUM new species.

Female:—Length, 3.00 mm. Deep orange yellow, the following parts purplish black: The abdomen except a triangle at basal lateral margin, the vertex and occiput (rest of head suffused slightly with reddish), face of pronotum and an inverted T-shaped marking in the centre of the scutellum (often obscure or absent). Antenna suffused with purple. Fore wing with a brownish yellow cross-stripe from near apex of the submarginal vein, otherwise hyaline, the band interrupted caudad of middle. Venation dusky yellowish, the stigmal vein subequal to the marginal, the postmarginal somewhat longer, all three pale. Second tooth of mandibles broadly truncate. Caudal tibial spur single. Scape rather thick; pedicel stout, oval, longer than funicle 6 which is largest yet somewhat wider than long; funicle 4 narrower than 2 and 3 which are subequal; ring-joint somewhat wider than long; funicles 1-5 prolonged a little from one lateral apex, 1 smallest, not a third the size of 6. Club as long as the scape. Axillæ slightly separated. Body shining but with delicate sculpture. Propodeum short, noncarinate. Pubescence sparse, short, black, thicker on pronotum.

From three females on a card in U.S.N.M. labelled "*Paraterobia* Ashm. Type No. 12719, U.S.N.M. Horn Gall on Iron Bark. Tumut. 7.10.99. 92."

Types: No. Hy 3564, Queensland Museum, Brisbane, the above females and a slide with a head, hind legs and a middle one.

This is *Paraterobia nigriceps* Ashmead MS. of the trydyimine Miscogasteridæ.

CÆLOCYBELLOIDES BIOCULATUS new species.

Female:—Length, 3.50 mm.

Reddish brown, the head yellow-brown, the prothorax and legs except the black proximal half or two thirds of the hind coxa, honey yellow. The following black parts: The mesal apices confluent of the axillæ, a rather small round spot at the latero-cephalic corner of the axilla; thorax transversely laterad of the postscutellum, propodeum, dorsal abdomen, hind coxa proximad, a small triangular sclerite just above hind coxa, genal suture, ventral meson and apex of the abdomen and mesothoracic venter. Venation yellow-brown, the fore wing with a yellow-brown, large, ovate area with its broader end against the bend of the submarginal vein, its narrow end against the tip of the stigmal. Marginal and stigmal veins subequal, the postmarginal pale yellow, a little longer. Hind tibial spurs double. Pedicel elongate, two and a half times longer than wide at apex; ring-joints each a little longer than wide; funicles 1-2 quadrate, the others shortening. Scape with a long-linear expansion, widening toward the apex. Thorax finely lined but with numerous scattered punctures. The scutellum with a median carina from base to apex of proximal third from thence mesad more finely scaly. Spots on axillæ and the black along the genal suture, jet.

Described from the type female and two paratype females in the U. S. National Museum labelled "94. Turpentine Gum Gall. Sydney, 1898, August 20. *Alloderma maculipennis* Ashmead."

Type: Catalogue No. 12717, U. S. National Museum, a slide bearing type fore wing and paratype hind legs and antenna and the above specimens.

This is *Alloderma maculipennis* Ashmead MS., placed in the trydyminine Miscogasteridae.

CŒLOCYBELLOIDES MEDIOLINEATUS new species.

Female:—Length, 2.35 mm.

Pale golden yellow, the wings subhyaline, the venation brown, the following parts black: Upper occiput centrally to vertex, face of pronotum, a moderate line down meson of scutum, dorsal aspect of the parapsides except the extreme cephalic end, the thorax caudad of the axillæ, the postscutellum and propodeum excepting rather broadly, the meson; caudal margin of scutum about as broadly as the median line of that part; and five brown-black stripes across dorsum and lateral aspects of the abdomen, the first well out from the base at about proximal fourth or fifth, the next two close to it, 3 broadly bowed, 4 arcuate, 5 also but much smaller and not far from the black apex. From the lateral aspect the stripes are more uniformly distributed. Venter of abdomen and most of that of thorax, black. Antennæ black, except proximal third of the scape (more ventrad); ring-joint 1 longer than 2; funicle 1 somewhat longer than wide, somewhat shorter than the pedicel, longest of the funicle. Hind tibial spurs double. Postmarginal vein a little longer than the stigmal. Propodeum with curved lateral earina. Body subglabrous, shining, very minute hairs scattered over the surface. Axillæ with a minute earina between them.

Male (apparently) the same but entirely purplish black including coxæ, the legs pale straw yellow. Funicle 1 subequal to the scape, nearly twice longer than wide; first ring-joint quadrate, longer than 2; funicles 4-6 subequal, each somewhat longer than wide, distinctly longer than the pedicel which is no longer than wide.

From two males, five females labelled "Cynips Galls. French, Victoria, 20-1-96."

Types: Two males, two females on two cards. Cat. No. U.S.N.M. 19683.

Paratypes: Two females in Queensland Museum. Brisbane, and 1 female on card, 3 females in all.

PERILAMPOMYIA new genus.

Runs to *Perilampella* but bears only one tibial spur on hind legs. Scutellum convex, overhanging the propodeum.

PERILAMPOMYIA NOTATIFRONS new species. Genotype.

Female:—Length, 2.35 mm.

Black, the wings subhyaline, the venation brown-black; the scape and legs except hind coxæ, lemon yellow, and also a conspicuous, rectangular (longer than wide) marking occupying the space between bases of the antennæ and the mouth or apex of the head. Abdomen lemon yellow with five tolerably broad cross-stripes of brown-black, the first well out from base. Pedicel yellowish brown ventrad; scape black dorso-distad (distal half). Tegulae brown. Marginal vein

about four times longer than wide, about two thirds longer than the stigmal, the latter a little longer than the postmarginal. Axillæ slightly widely separated, terminating mesad more than half way between meson and the ends of the parapsidal furrows. Thorax densely polygonally scaly, the abdomen and head more faintly so. Propodeum short at the meson. Abdomen globose, larger than the rest of the body. Scape slender, two distinct ring-joints, the second larger than the first; funicle joints a little longer than wide, the funicle cylindrical, the joints gradually shortening distad, 6 quadrate. Pedicel as large as funicle 1. *Male*, the same but the abdomen nearly all black and the antennæ nodular, the funicle joints swollen at base and tapering distad and each with a whorl of rather long stiff bristles around the swollen portion; also the pedicel is no longer than wide at apex and all funicle joints are distinctly longer than in the female.

Described from two males, seven females in the U. S. National Museum collections labelled "850. Swan Riv. W. Austr. G. Compere Coll."

Types: Catalogue No. 19147, U.S.N.M., two females plus a slide with the appendages. *Cotypes*: No. Hy 3565, Queensland Museum, two males, three females on tags.

PARELATUS new genus.

Genotype: *Elatus ater* Girault, male.

Elatus is described as bearing two ring-joints in the antennæ.

FAMILY PTEROMALIDÆ.

In *antea*, III, p. 330, line 23, *Pterosema* read *Pterosema*; page 342, line 19, *Paracloclisis* read *Paraacroclisis*.

PTEROMALUS PUPARUM (Linnæus).

What is accepted as this species occurs in Australia. There are specimens in the U. S. National Museum labelled "Reared from orange butterfly pupa, June 14, 1898, W. W. Froggatt." Evidently from near Sydney and introduced.

PARURIELLA VIRIDIS new species.

Female:—Length, 1.60 mm.

Similar to *australiensis* but the lateral carina of the propodeum is absent. The male is about the same but the propodeum very short at the meson.

Described from two males, one female on tags in the U. S. National Museum, labelled "H. 98. Boggabri, New South Wales. Reared from seeds of grass (*Panicum* sp.). Fry. January 23, 1909."

Types: Catalogue No. 19686, U.S.N.M., the foregoing specimens plus a slide bearing female head, fore wing and caudal tibia.

GENUS CÆLOCYBA Ashmead.

Belongs to the Perilampidæ which see.

GENUS TERABIELLA Ashmead.

Belongs to the Perilampidæ which see.

GENUS BRACHYSCELIDIPIHAGA Ashmead.

Belongs to the Perilampidæ which see.

GENUS EURYCRANIUM Ashmead.

Synonymic with *Anysis* Howard and the genotype differs from the genotype of *Anysis* (*australiensis*) in having funicle 3 longer than wide and the abdomen all reddish brown except near tip and narrowly across base; the wings are subhyaline. The scutellum is very finely transversely lined but distad of an indicated cross-suture, it is coarsely scaly (as also in *australiensis*). In *australiensis* the abdomen is suffused with brownish. In the male *alcocki*, the abdomen is all concolorous, the antennæ not clavate as in the female but much longer and filiform, 9-jointed, the third club joint not very distinctly articulated, the pedicel very short, fuscous, funicle 1 elongate, subequal to the club, 3 longer than wide, subequal to club 1. The male flagellum is clothed with spearlike, flattened setæ. Types of genotypes compared and slides made.

EURYCRANIELLA new genus.

Genotype: Eurycranium bacusomorpha Girault.

Since *Eurycranium* equals *Anysis* and the latter belongs to the Miscogasteridæ, the above species must represent a new genus. It differs from *Anysis* in other characters.

GENUS ANYSIS Howard.

Belongs to the Miscogasteridæ which see.

MUSCIDEOIDEA new name.

Muscidea Girault is preoccupied by *Muscidea* Motschulsky, a valid genus as I find later, so that the above name is proposed for the first.

OPHELOSIA CRAWFORDI Riley.

The genus is correctly described by myself. The genotype female bears a very scanty tuft of short setæ just at the side of the petiole on segment 2 of abdomen. The colour of the genotype is light yellow, the part of the propodeum laterad of the prolonged part dorsad and the antennal club, black. There is no areolus on the thorax as in *saintpierrei*. The male antenna is 8-jointed with one ring-joint, the club solid, the funicle joints as in the male *Eurytoma*; the pedicel is subglobular, funicle 1 longest, stout, a third longer than wide but shorter than the club. Funicle 4 oval, a little longer than wide. The lateral parts of the mesoscutum in the female are not black.

The types are three females, two males on tag, a male antenna on a slide. Catalogue No. 1510, U.S.N.M.

OPHELOSIA HYPATIA new species.

Female.—Differs from *crawfordi* in being much darker and in having metallic colour on the thorax dorsad. From *saintpierrei* in having all the antenna black except the yellow scape and the entire abdomen and hind tibia; also the propodeum is black, except the middle prolonged portion, the general colour reddish brown. From *pinguis* in having the entire abdomen black and so on. The metallic colour shows mostly along the caudal margin of the scutum and the cephalic margins of the axillæ. Axillæ and the scutellum at apex, glabrous. Ring-joint or funicle 1 wider than long, 2 longest, slightly longer than wide, the following three joints a little wider than long, larger than 1. Fore and hind femora compressed. What appeared to be the male was dark metallic green with the legs and antennæ all dark except tarsi, the wings as in the female. The

male scape is yellow, the funicle less excised than with *crawfordi* and there are two ring-joints, the first very short but distinct. Vertex punctured in both sexes. Middle tibiæ dusky.

Described from four females, two males in the U.S.N.M. labelled "*O. Crawfordi*. From Iceerya. Alex. Craw. California. Imported from Australia. G. Compere, July, 1900." Also, a large series in the U.S.N.M. labelled "12. Sydney, N.S.W."

Types: Catalogue No. 19687, U.S.N.M., a pair on tags plus a slide with antennæ of both sexes and the female hind leg (Australia). *Cotypes*: No. *Hy 3566*, Queensland Museum, two females on tag.

OPHELOSIA VIRIDITHORAX new species.

Female:—Length, 1.50 mm.

Yellow-brown, the abdomen purplish black, also the antennal club, the propodeum entirely and the centre of the occiput narrowly; ocellar area and the thorax, except pronotum, dark metallic green; venter of abdomen yellow brownish. Caudal femora and tibiæ dorsad at distal two thirds, purplish. Otherwise about as in *hypatia*.

From one female on a tag in the U.S.N.M. labelled "Australia. Koebele."

The type is in the U.S.N.M. Catalogue No. 19688.

OPHELOSIA BIFASCIATA new species.

Female:—Of usual length.

Differs from the other species in being uniformly reddish brown, the axillæ very slightly aneous, the flagellum, cephalic margin of the propodeum (broader laterad), a tolerably narrow stripe across base of abdomen and another across its middle (just before apex of segment 2), black. Also the caudal tibiæ and the dorsal margin of the caudal femora. Funicle 1 like a large ring-joint, distinctly wider than long, 2 subquadrate, longest, 5 widest. Pedicel longer than any funicle joint.

Described from one female in U.S.N.M. labelled "Australia. Koebele. From Dep. Agric. 12." Associated with coccinellid larvæ.

Type: Catalogue No. 19689, U.S.N.M., the above specimen on a tag.

OPHELOSIA VIRIDINOTATA new series.

Female:—Of the usual length. Yellow-brown, like the other species but marked with dark metallic green as follows: Centre of occiput narrowly, a diamond-shaped marking centre of scutum, its widest portion cephalad of the centre, extending also on to meson of the pronotum, cephalic and caudal margins of scutellum and its median line, all rather broadly, mesocephalic half or nearly of each axilla, postscutellum, a broad stripe across cephalic margin of the propodeum and all of abdomen except proximal fourth which is more or less concolorous. Flagellum and the caudal two pairs of tibiæ, black. Funicle joints widening distad, 2 subquadrate.

Described from a female labelled "Australia. Koebele."

Type: U.S.N.M., the above female.

All of the foregoing species have heretofore passed for the genotype.

GENUS TOMOCERA Howard.

Belongs to the Cleonymidæ which see.

EURYDINOTELLA AUSTRALIA new species.

Female:—Length, 1.65 mm.

Differs from the genotype in that segment 2 of the abdomen is somewhat longer than 3, the two occupying half of the surface, the postmarginal vein is distinctly longer than the stigmal and there is only an abbreviated (very short) lateral carina on propodeum from base to the mesal side of the minute spiracle. Also the club bears a "fourth" minute joint ending in a short terminal spine. Pedicel concolorous with the rest of the flagellum, the tip of the scape also but rest of scape yellowish brown. Proximal half of caudal coxæ above metallic green. Postmarginal vein not as long as the marginal. A round fovea just mesad of the short lateral carina at base of propodeum. Segment 4 of abdomen as long as 5 and 6 combined, shorter than 3. Whole of thorax scaly punctate, the abdominal petiole scaly. Otherwise agreeing with the description of *prima*. Oociput immargined.

Described from one female caught on a window, Brooklyn, N.S.W., Nov., 1914.

Type: No. *Hy* 3567, Queensland Museum, Brisbane, the specimen on a tag; fore wing, hind tibiæ and the head on a slide.

GENUS NEOPTROCERUS Girault.

In *antea*, original description, line 1, for *Roptrocercus* Ashmead read *Tropidogastra* Ashmead.

GENUS PACHYNEURON, Walker.

Female:—In Ashmead's (1904) table the following species run to *Pachyneuron* Walker but segment 2 of the abdomen occupies only somewhat over a fourth of the surface. The parapsidal furrows are two thirds complete from cephalad. Both mandibles 4-dentate. Antennæ 13-jointed with two ring-joints. Petiole of abdomen somewhat longer than wide. Propodeum with a distinct neck, without a median carina, the lateral Y-shaped, the tail of the Y caudad and not reaching the apex of the neck, one branch going to the meson at base (really a loop—the opposite sides joined across the meson), the other to a point on cephalic margin a short distance mesad of the spiracle. Marginal vein slightly widening distad, two and a half times longer than wide at apex, the stigmal and postmarginal very narrow and elongate, the first subequal to the thickened marginal, the postmarginal distinctly longer than the marginal. A delicate, narrow spiracular sulcus. Maxillary palpus 4-jointed, the last joint longest. Genal suture absent. Antennæ inserted a little above ventral ends of the eyes, below middle of face. Axillæ nearly joined. Head wider than the thorax.

PACHYNEURON EMERSONI new species.

Female:—Length, 1.35 mm.

Very dark metallic green-black, the wings hyaline, the venation blackish, the body scaly except the much less so propodeum and body of the abdomen, the latter glabrous. Abdomen and propodeum brown, washed slightly with metallic

greenish dorsad. Coxæ light brown; rest of legs except the femora which are lightly brownish dorsad and the scape pale yellowish white. Flagellum dusky, also tip of scape a little dorsad, the funicle joints subquadrate, the last two slightly wider than long; pedicel somewhat longer than funicle 1. Petiole of abdomen sometimes brown. Pronotum glabrous.

The male is the same but the femora are white like the tibiæ and the antennæ filiform and more slender, the two ring-joints shorter, the funicle joints longer, subequal, each about a half longer than wide, the pedicel not as long as wide; the flagellum is distinctly more hairy than with the female.

From several specimens of each sex on separate tags labelled "878. Swan River, W. Austr. G. Compere, Collector." Also a slide bearing female head and hind leg, male hind legs and antennæ. Catalogue No. 19691, U.S.N.M., two females on tags plus the slide.

Paratypes are two females, one male on tags in the Queensland Museum, No. *Hy* 3568.

PACHYNEURON KINGSLEYI new species.

Female:—Length, 1.50 mm.

Differs from *emersoni* in its greater suture, the uniformly dark green body, the concolorous coxæ, the subconcolorous femora and in having the tibiæ concolorous dorsad, except broadly at tips (more so on cephalic tibiæ). Scape except at apex (distal fourth), trochanters, knees, tips of tibiæ and the tarsi yellow. Otherwise the same or nearly. The propodeum shows slight scaly sculpture. One mandible not seen.

Described from one female captured by sweeping in the forest, Brooklyn, N.S.W., October 31, 1914 (partly boggy).

Type: No. *Hy* 3569, Queensland Museum, the specimen on a tag; hind tibiæ and a head on a slide.
